

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of :  
Yoshiyasu FUJIWARA : METHOD OF SUPPORTING SALES AND  
Serial No. Not Yet Assigned : MAINTENANCE OF STEAM TRAPS AND  
Filed Concurrently Herewith : AGGREGATING SYSTEM FOR USE IN THE  
METHOD

Pittsburgh, Pennsylvania  
October 31, 2001

PRELIMINARY AMENDMENT

Commissioner for Patents  
Washington, D.C. 20231

Sir:

Prior to initial examination, please amend the above-identified patent application as follows:

IN THE SPECIFICATION:

Please delete and amend section headings and amend specification paragraphs as follows. (Pursuant to 37 CFR 1.121, marked-up versions of the amended specification paragraphs are attached.)

Please replace the paragraph beginning at page 15, line 14 with the following rewritten paragraph:

According to a twelfth feature of the present invention,

Please replace the paragraph beginning at page 20, line 22 with the following rewritten paragraph:

Separately from the above, in response to an instruction for producing further comparison data, this computer system 7 further calculates, based on the above-described

input data including the number of the existing steam traps of the diagnosed area 1 (i.e. the number of the diagnosed existing steam traps) and the number of the other existing steam traps in the other un-diagnosed areas 1b-1d, an estimated value of a first total steam loss amount (Qa) (that is, an estimated value calculated by multiplying a sum of steam leak amounts (qa) due to malfunction of the diagnosed steam traps 2a by a trap number ratio between the number of all of the existing steam traps in the plant 1 and the number of the diagnosed steam traps). Furthermore, this computer system 7 calculates an estimated value of a second total steam loss amount (Qb) which comprises aggregation of differences (qb) between normal or inherent steam leak amounts of all the existing steam traps 2 under their normal working conditions and steam leak amounts of recommended steam traps (in the present embodiment, a free-float type steam traps) under their normal working conditions, the estimated value being calculated by multiplying the sum of steam leak amount differences (qb) due to the model difference by the above-described trap number ratio, by using pre-inputted data relating to steam leak amount difference between a recommended model of steam trap and another model of steam trap under their normal working conditions.

#### **IN THE CLAIMS:**

**Please amend claim 1 as follows:**

1. (Amended) A method of supporting sales and maintenance of steam traps, the method utilizes an aggregating system, comprising the steps of:

inputting stored diagnostic result data and model confirmation result data from a diagnostic device which has diagnosed a working condition of each of a plurality of existing steam traps installed in a customer's plant;

calculating, based on said diagnostic result data, a first total steam loss amount due to malfunction of steam traps, the first total steam loss amount comprising aggregation of steam leak amounts of all the existing steam traps;

calculating, based on said model confirmation result data, a second total steam loss amount, which comprises aggregation of differences between inherent steam leak amounts of the existing steam traps under their normal working conditions and inherent steam leak amounts of recommended steam traps under their normal working conditions;

calculating a monetary conversion value of an integrated value of a sum of the first total steam loss amount and the second total steam loss amount integrated for a predetermined period;

generating comparison data allowing comparison between said monetary converted value and a replacement cost required for lump-sum replacement of all the existing steam traps by the recommended steam traps; and

outputting said comparison data for presentation to the customer in sales and/or maintenance activities of the recommended steam traps.

**IN THE ABSTRACT:**

**Please replace the paragraph beginning at page 34, line 3 with the following rewritten paragraph:**

Disclosed is a system for supporting sales and maintenance activities of steam traps by a seller of the traps to a customer. The system utilizes an aggregating system which effects a step of inputting stored diagnostic result data and model confirmation result data from a diagnostic device which has diagnosed a working condition of each of a plurality of existing steam traps installed in a customer's plant. Based on the diagnostic result data, a first total steam loss amount due to malfunction of steam traps is calculated, the first total steam loss amount comprising aggregation of steam leak amounts of all the existing steam traps. Based on the model confirmation result data, a second total steam loss amount is calculated, which comprises aggregation of differences between inherent steam leak amounts of the existing steam traps under their normal working conditions and inherent steam leak amounts

of recommended steam traps under their normal working conditions. A monetary conversion value of an integrated value of a sum of the first total steam loss amount and the second total steam loss amount integrated for a predetermined period is calculated. Comparison data is generated allowing comparison between the monetary converted value and a replacement cost required for lump-sum replacement of all the existing steam traps by the recommended steam traps. The comparison data is outputted for presentation to the customer in sales and/or maintenance activities of the recommended steam traps.

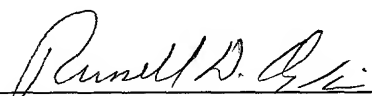
#### REMARKS

The specification and claims have been amended to place the application in conformance with standard United States patent practice.

Examination and allowance of pending claims 1-17 are respectfully requested.

Respectfully submitted,

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## **VERSION WITH MARKINGS TO SHOW CHANGES MADE**

### **In the specification:**

**Paragraph beginning at page 15, line 14 has been amended as follows:**

According to [the] a twelfth [characterizing] feature of the present invention,  
[in the aggregating system according to claim 9,]

**Paragraph beginning at page 20, line 22 has been amended as follows:**

Separately from the above, in response to an instruction for producing further comparison data, this computer system 7 further calculates, based on the above-described input data including the number of the existing steam traps of the diagnosed area 1 (i.e. the number of the diagnosed existing steam traps) and the number of the other existing steam traps in the other un-diagnosed areas 1b-1d, an estimated value of a first total steam loss amount (Qa) (that is, an estimated value calculated by multiplying a sum of steam leak amounts (qa) due to malfunction of the diagnosed steam traps 2a by a trap number ratio between the number of all of the existing steam traps in the plant 1 and the number of the diagnosed steam traps). Furthermore, this computer system 7 calculates an estimated value of a second total steam loss amount (Qb) which comprises aggregation of differences (qb) between normal or inherent steam leak amounts of all the existing steam traps 2 under their normal working conditions and steam leak amounts of recommended steam traps (in the present embodiment, a free-float type steam traps) under their normal working conditions, the estimated value being calculated by multiplying the sum of [steak] steam leak amount differences (qb) due to the model difference by the above-described trap number ratio, by using pre-inputted data relating to steam leak amount difference between a recommended model of steam trap and another model of steam trap under their normal working conditions.

**In the claims:**

**Claim 1 has been amended as follows:**

1. (Amended) A method of supporting sales and maintenance of [a] steam traps, the method utilizes an aggregating system [which effects] , comprising the steps of:

inputting stored diagnostic result data and model confirmation result data from a diagnostic device which has diagnosed a working condition of each of a plurality of existing steam traps installed in a customer's plant;

calculating, based on said diagnostic result data, a first total steam loss amount due to malfunction of steam traps, the first total steam loss amount comprising aggregation of steam leak amounts of all the existing steam traps;

calculating, based on said model confirmation result data, a second total steam loss amount, which comprises aggregation of differences between inherent steam leak amounts of the existing steam traps under their normal working conditions and inherent steam leak amounts of recommended steam traps under their normal working conditions;

calculating a monetary conversion value of an integrated value of a sum of the first total steam loss amount and the second total steam loss amount integrated for a predetermined period;

generating comparison data allowing comparison between said monetary converted value and a replacement cost required for lump-sum replacement of all the existing steam traps by the recommended steam traps; and

outputting said comparison data for presentation to the customer in sales and/or maintenance activities of the recommended steam traps.

**In the abstract:**

**Paragraph beginning at page 34, line 3 has been amended as follows:**

[A] Disclosed is a system for supporting sales and maintenance activities of steam traps by a seller of the traps to a customer. The system utilizes an aggregating system which effects [the steps of:] a step of inputting stored diagnostic result data and model confirmation result data from a diagnostic device which has diagnosed a working condition of each of a plurality of existing steam traps installed in a customer's plant[; calculating, based on said]. Based on the diagnostic result data, a first total steam loss amount due to malfunction of steam traps is calculated, the first total steam loss amount comprising aggregation of steam leak amounts of all the existing steam traps[; calculating, based]. Based on [said] the model confirmation result data, a second total steam loss amount is calculated, which comprises aggregation of differences between inherent steam leak amounts of the existing steam traps under their normal working conditions and inherent steam leak amounts of recommended steam traps under their normal working conditions[; calculating a]. A monetary conversion value of an integrated value of a sum of the first total steam loss amount and the second total steam loss amount integrated for a predetermined period[; generating comparison] is calculated. Comparison data is generated allowing comparison between [said] the monetary converted value and a replacement cost required for lump-sum replacement of all the existing steam traps by the recommended steam traps[; and outputting the]. The comparison data is outputted for presentation to the customer in sales and/or maintenance activities of the recommended steam traps.